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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,327	12/20/2001	Shi-Choon Lee	DKC 1800	1597

7590 03/16/2004  
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EXAMINER


WYROZEBSKI LEE, KATARZYNA I

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/027,327	<b>Applicant(s)</b> LEE ET AL.	
	<b>Examiner</b> Katarzyna Wyrozebski Lee	<b>Art Unit</b> 1714	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

In view of the amendment received on 12/31/2003 following final office action has been necessitated.

***Claim Rejections - 35 USC § 112***

The rejections under 112 2<sup>nd</sup> paragraphs have been addressed but they have not been corrected. The rejections are therefore not overcome and are incorporated here by reference.

New rejection that resulted from the amendment to claims:

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 indicates that the matrix resin is mixed with aminosilane before addition of the glass fibers. While claim 4, that contains all the limitation of claim 1 states that glass fibers are treated with coupling agent prior to being mixed with component A and C. These two are contradicting statements wherein claim 4 not only does not further narrow the limitations of claim 1 but also contradicts the limitations of claim 1.

***Claim Rejections - 35 USC § 102***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-3, 6, 10-15, 19, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 07-33484 ('484).

The discussion of the disclosure JP 07-33484('484) from paragraph 4 of the office action mailed on 9/9/2003 is incorporated here by reference.

***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 4, 5, 7-9, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-33484 ('484) as applied to claims 1-3, 6, 10-15, 19, 20 above, and further in view of JAGAWA (US 5,811,491).

The discussion of the disclosure of JP 07-33484 and JAGAWA from paragraph 8 of the office action mailed on 9/9/2003 is incorporated here by reference.

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7. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-33484 ('484) as applied to claims 1-3, 6, 10-15, 19, 20 above, and further in view of JP 05-331335 ('335).

The discussion of the disclosure of JP 07-33484 and JP 05-331335 from paragraph 9 of the office action mailed on 9/9/2003 is incorporated here by reference.

In the response the applicants argued following:

a) The translation of the JP 07-33484 is very poor.

With respect to the above note, the translation is a computer translation and all the components that the examiner relied on are more than clearly depicted.

b) There is no specific disclosure of aminosilane in JP 07-33484.

With respect to the above argument, the applicants are requested to look in paragraph [0011] of this reference. The paragraph contains specific aminosilanes utilized in the composition of the prior art.

c) JP 07-33484 does not teach mixing aminosilane with the composition before the addition of glass fibers.

With respect to the above limitation, and according to *In re Thorpe*, 777 F.2d 695, 698 227 USPQ 964, 966 (Fed. Cir. 1985), in such claims determination of patentability is based on

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the product itself and not on its methods of production, absent showing of criticality of the process steps (See MPEP 2113).

d) The applicants further state that JP 07-33484 does not utilize the same process by pretreatment of the fibers with sizing agent then coating the strands with aminosilane, epoxy and AS resin and that the resulting strands are not thermoplastic.

Couple points here. One is that the applicants themselves are claiming a composition not a process, therefore the arguments directed towards the differences in processes are considered moot. Even though, the applicant's dependent claims 19 and 20.

Second, with respect to the resulting strands not being thermoplastic, there is no indication in the composition of JP 07-33484 for such statement. The styrenic polymer utilized in the Japanese reference comprises the same monomers as the styrenic resin of the present invention. If applicants refer to the epoxy, such is part of the sizing agent [see 0017].

e) There is no disclosure of mixing aminosilane at any point in JP 07-33484.

With respect to the above limitation the applicants are claiming composition not a process of making composition. The specific addition step of aminosilane does not render '484 inapplicable against present claims.

f) For arguments targeted towards rejection of JP 07-33484 in view of JAGAWA on page 8 of applicants response, please refer to the paragraphs a-e above.

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f) The applicants traverse the rejection of '484 in view of '335 and the pretreatment of glass fibers with aminosilane.

With respect to the above argument, the examiner carefully reconsidered the amendment. Although the pre-treatment of the glass fiber is not a proper interpretation, the examiner has to agree with the applicants here, in view of this amendment the prior art '335 is still applicable against present claims. Example [0019] of '335 teaches that the treatment of E-glass by aminosilane is carried out heat melting a mixture of the pellets of glass fiber, PMMA and SAN within the extruder. This further supports that the glass fibers are not pre-treated with aminosilane before being incorporated into the melt mix of matrix polymers but that the glass fiber is treated in situ within the extruder. Those skilled in the art have only two ways of adding the glass fibers and aminosilane to the composition. One is by mixing aminosilane with matrix resin before addition of glass fibers or mixing glass fibers with the matrix before addition of aminosilane.

g) JP 07-33484 does not teach subsequent addition of glass fibers to the matrix containing aminosilane.

In view of the applicants' amendment, the examiner would like to point the applicants to the example on page 3 of the '484 [020]. In the example, aminosilane is mixed with epoxy, AS and vegetable wax. The mixture then is mixed with glass fibers. With respect to the case laws cited by the applicants in the chemical world the inherency comes from properties of compounds utilized and are completely unrelated to mechanical world. The case laws cited therefore are considered moot and will not be addressed.

h) The composite of the prior art of '484 is not thermoplastic composite, since the amount of AS is not enough to make composite.

With respect to the above argument, '484 discloses in [0028] that when AS was made into matrix resin in showed excelling intensity.... In addition [0025] teaches use of AS in 80 wt %, which is more sufficient to form composite.

i) In the present invention composites were formed by incorporating aminosilane before incorporation of glass fibers.

Please see argument c above.

j) There is no motivation to combine '484 with JAGAWA. The examiner did not establish prima facie motivation

With respect to the above argument, both disclosures are in the same field of endeavor, which is making glass reinforced composition. Both utilizing the same type of polymer (AS) and both utilizing glass fibers. The combination of two known compositions is expected to work in additive or cumulative manner. *In re Kerkhoven* 626 E.2d 846, 850 205 USPQ 1069, 1072 (CCPA 1980). The motivation has been established.

k) The applicants state that the addition of aminosilane to pre-treat glass fibers teaches away from the present invention.



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With respect to the above argument, as it was stated many times before, this are product by process claims. In addition, the applicants really need to clarify the issue between claim 1, claim 4 and the addition of the glass fibers.

l) There is no motivation to use additional polymers in '484.

With respect to the above argument, please see paragraph j). In view of the above paragraph j), it is examiners position that teaching of additional copolymers is enabled, especially when the prior art '484 utilizes ABS as well.

m) There is no motivation to utilize aminosilane prior to addition of glass fibers.

Again, please see answer to the product by process argument.

n) The examiner has not established prima facie obviousness case for the combination of '484 and '335.

Please see answer to argument j).

o) There is no motivation to utilize aminosilane before addition of glass fibers.

Please see answer to argument f).

p) There is no motivation to utilize aminosilane as a sizing agent.

With respect to the above argument, the present invention does not contain any requirement as to the type of the sizing agent. The prior art utilized refers to aminosilanes as coupling agent. It is not clear as to what the applicants are trying to point out by this statement.

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

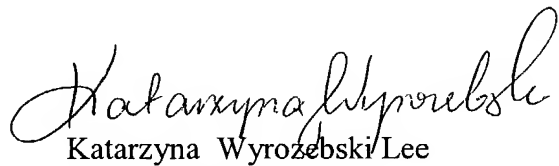
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski Lee whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Katarzyna Wyrozebski Lee  
Primary Examiner  
Art Unit 1714

kiwl  
March 11, 2004